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Table 4—Equivalent Powers and Antenna Heights for Urban-Conventional and Trunked System Base Stations in the 851–869 MHz and 935–940 MHz Bands Which Have a Requirement for Less than 32.2 km (20 mi) Service Area Radius—Maximum Effective Radiated Power (Watts)—Continued

	Bas	se station an	tenna height	(AAT) meter	rs (feet)			
Above	228 (750) 152.5 (500)	122 (400)	91.5 (300)	61 (200)	30.5 (100)	15 (50)	0 (0)	
	305	(000)	152.5	(500)	91.5	(100)	30.5	
to	(1,000)	228 (750)	(500)	122 (400)	(300)	61 (200)	(100)	15 (50)
22 (14)	200	260	400	500	650	1,000	1,000	1,00
21 (13)	140	180	280	350	450	700	1,000	1,00
19 (12)	100	130	200	250	325	500	1,000	1,00
18 (11)	70	90	140	175	230	350	700	1,00
16 (10)	45	60	90	110	145	220	440	1,00
14 (9)	30	40	60	75	100	150	300	60
13 (8)	20	25	40	50	65	100	200	40
11 (7)	15	20	30	40	50	80	160	30
10 (6)	8	10	16	20	25	40	80	10
8 (5) or less	5	6	9	12	15	25	50	10

[47 FR 41032, Sept. 16, 1982; 47 FR 41045, Sept. 16, 1982, as amended at 50 FR 784, Jan. 7, 1985; 51 FR 37404, Oct. 22, 1986; 52 FR 29857, Aug. 12, 1987; 53 FR 1027, Jan. 15, 1988; 58 FR 44963, Aug. 25, 1993; 60 FR 50123, Sept. 28, 1995; 63 FR 68969, Dec. 14, 1998]

§ 90.637 Restrictions on operational fixed stations.

- (a) Except for control stations, operational fixed operations will not be authorized in the 806-824 MHz, 851-869 MHz, 896-901 MHz, or 935-940 MHz bands. This does not preclude secondary fixed tone signaling and alarm operations authorized in §90.235 or in paragraph (c) of this section.
- (b) Control stations associated with one or more mobile relay stations will be authorized only on the assigned frequency of the associated mobile station. Use of a mobile service frequency by a control station of a mobile relay system is subject to the condition that harmful interference shall not be caused to stations of licensees authorized to use the frequency for mobile service communications.
- (c) Trunked and conventional systems that have exclusive-use status in their respective geographic areas may conduct fixed ancillary signaling and data transmissions subject to the following requirements:
- (1) All operations must be on a secondary, non-interference basis to the primary mobile operation of any other licensee.
- (2) The output power at the remote site must not exceed 30 watts.
- (3) Any fixed transmitters will not count toward meeting the mobile load-

- ing requirements nor be considered in whole or in part as a justification for authorizing additional frequencies in the licensee's mobile system.
- (4) Automatic means must be provided to deactivate the remote transmitter in the event the carrier remains on for a period in excess of three minutes.
- (5) Operational fixed stations authorized pursuant to the provisions of paragraphs (c) and (d) of this section are exempt from the requirements of §§ 90.425 and 90.429
- (d) Conventional systems that do not have exclusive-use status in their respective geographic areas may conduct fixed ancillary signaling and data transmissions only in accordance with all the provisions of §90.235.

[47 FR 41032, Sept. 16, 1982, as amended at 48 FR 51929, Nov. 15, 1983; 49 FR 36377, Sept. 17, 1984; 51 FR 37405, Oct. 22, 1986; 52 FR 1332, Jan. 13, 1987; 53 FR 12157, Apr. 13, 1988; 57 FR 34693, Aug. 6, 1992]

§ 90.645 Permissible operations.

Conventional and trunked radio systems may be used:

- (a) Only for purposes expressly allowed under this part.
- (b) Only persons who are eligible for facilities, either under this subpart or in the radio service included under subparts B or C of this part.

- (c) Except for licensees classified as CMRS providers under part 20 of this chapter, only for the transmission of messages or signals permitted in the services is which the participants are eligible.
- (d) For digital or analog transmissions.
- (e) An SMRS licensee or a licensee who has been authorized a channel(s) on an exclusive basis, may use the system for the transmission of any base/mobile message, page or signal permitted in the service in which the participants are eligible.
- (f) Where the channel(s) is assigned to an SMRS licensee or exclusively to a single licensee, or where all users of a system agree, more than a single emission may be utilized within the authorized bandwidth. In such cases, the frequency stability requirements of §90.213 shall not apply, but out-of-band emission limits of §90.209 shall be met.
- (g) Up to five (5) contiguous 806-821/851-866 band channels as listed in §§ 90.615, 90.617, and 90.619 may be authorized after justification for systems requiring more than the normal single channel bandwidth. If necessary, licensees may trade channels amongst themselves in order to obtain contiguous frequencies. Notification of such proposed exchanges shall be made to the appropriate frequency coordinator(s) and to the Commission by filing an application for license modifica-
- (h) Up to 10 contiguous 896–901/935–940 MHz band channels as listed in §90.617 may be combined for systems requiring more than the normal single channel bandwidth. If necessary, licensees may trade channels amongst themselves in order to obtain contiguous frequencies. Notification of such proposed exchanges shall be made to the appropriate frequency coordinator(s) and to the Commission by filing an application for license modification.
- (i) Paging operations may be utilized on multiple licensed facilities (community repeaters) only when all licensees of the facility agree to such use.

[47 FR 41032, Sept. 16, 1982, as amended at 48 FR 51929, Nov. 15, 1983; 51 FR 37405, Oct. 22, 1986; 59 FR 59966, Nov. 21, 1994; 62 FR 18935, Apr. 17, 1997; 63 FR 68970, Dec. 14, 1998]

§ 90.647 Station identification.

- (a) Conventional systems of communication shall be identified in accordance with existing regulations governing such matters.
- (b) Trunked systems of communication, except as noted in paragraph (c) of this section, shall be identified through the use of an automatic device which transmits the call sign of the base station facility at 30 minute intervals. Such station identification shall be made on the lowest frequency in the base station trunk group assigned the licensee. Should this frequency be in use at the time station identification is required, such identification may be made at the termination of the communication in progress on this frequency. Identification may be made by voice or International Morse Code. When the call sign is transmitted in International Morse Code, it must be at a rate of between 15 to 20 words per minute and by means of tone modulation of the transmitter, the tone frequency being between 800 and 1000
- (c) Stations operating in either the 806-824/851-869 MHz or 896-901/935-940 MHz bands that are licensed on an exclusive basis, and normally employ digital signals for the transmission of data, text, control codes, or digitized voice may also be identified by digital transmission of the call sign. A licensee that identifies its station in this manner must provide the Commission, upon its request, information sufficient to decode the digital transmission and ascertain the call sign transmitted.
- (d) Notwithstanding the requirements set forth in this paragraph, systems operated by geographic area CMRS licensees are subject only to the station identification requirements of §90.425(e).

[47 FR 41032, Sept. 16, 1982, as amended at 58 FR 12177, Mar. 3, 1993; 65 FR 24420, Apr. 26, 2000]

§ 90.651 Supplemental reports required of licensees authorized under this subpart.

Licensees of conventional systems must notify the Commission in accordance with \$1.946 of this chapter of the